

DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION  
ACTIVITY REPORT: Scheduled Inspection

B617839800

FACILITY: HURON VALLEY STEEL CORP		SRN / ID: B6178
LOCATION: 41000 HURON RIVER DR, BELLEVILLE		DISTRICT: Detroit
CITY: BELLEVILLE		COUNTY: WAYNE
CONTACT: Sam Amer, Environmental Manager		ACTIVITY DATE: 05/12/2017
STAFF: Jonathan Lamb	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Scheduled inspection, FY 2017		
RESOLVED COMPLAINTS:		

INSPECTED BY: Jonathan Lamb, MDEQ-AQD  
PERSONNEL PRESENT: U. Sam Amer, Environmental Manager; Jack Prather, Plant Manager; Jerry Mills, Assistant Plant Manager; Dave Splan, Vice President  
FACILITY PHONE NUMBER: (734) 479-3500  
FACILITY FAX NUMBER: (734) 479-3456  
FACILITY WEBSITE: www.hvsc.net

**FACILITY BACKGROUND:**

Huron Valley Steel is located on a 25-acre lot in Belleville, Michigan, and has operated in this location since 1961. The primary activity at this facility is the processing and separating of shredded non-ferrous automobile scrap for metal recovery and recycling. Approximately 70% of the metal recovered is aluminum, with the remaining 30% other non-ferrous metals, including copper, zinc, brass, and stainless steel.

There is some type of processing activity going on at the facility 24 hours per day, 7 days a week, and has 90-100 employees. Huron Valley Steel is owned by Fritz Enterprises, based in Trenton, Michigan.

**COMPLAINT/COMPLIANCE HISTORY:**

There have been no violations issued against the company in the past five years, and the company has not had a history of residential complaints.

**PROCESS DESCRIPTION AND EQUIPMENT:**

There are currently three active processes at the facility:

Prep Line

Initial processing at the facility begins at the Prep Line, which processes non-ferrous auto scrap residue (ASR) from shredded cars. The ASR is produced at 60-100 different auto shredders throughout the country and is primarily delivered to Huron Valley Steel by truck, though some is also delivered by rail car. The facility receives 20-40 truckloads of ASR per day, Monday through Friday. Inbound ASR is unloaded from the trucks/rail cars and stored, uncovered, in piles in the yard until processing. To begin processing, the ASR is loaded into a feeder hopper and fed by a conveyor to a shaker, which sizes the material; materials greater than 1.5 inches are sent through one 26,000 CFM cyclone separator, while materials smaller than 1.5 inches are sent through a second 26,000 cyclone separator. The cyclones pull out the lighter material, including auto fluff and plastics, leaving the heavier materials (mainly metals) behind. The separated materials are then sent to other parts of the facility for further processing: the lighter material goes to a Rotary Dryer while the heavier materials go to the Non-Ferrous Wire Separation process.

The conveyors are covered and use water sprays to keep the dust down during processing, which results in the sorted material to be wet after processing.

Rotary Dryer

The waste material (non-metals) produced in the Prep Line is sent to the Rotary Dryer for processing to remove any remaining metal that was not removed during the Prep Line processing. The waste material goes into a feeder hopper and is fed by a conveyor through four eddy current rotors to remove non-ferrous material. A rotary tumbler cooler associated with this process was removed from operation in the mid-1990s.

Emissions from the rotary dryer are controlled by a cartridge baghouse.

#### Wire Sort

Wire Sort operates 24 hours per day, 7 days per week. Material is put into a feeder hopper and fed onto a shaker, which sizes the material and sends it through five electromagnetic sorting (EMS) machines to separate the metals from the plastic, rubber, and auto-fluff.

Emissions from the Wire Sort process are controlled by a cyclone with a baghouse.

The metals recovered from processing at HVS are used as a raw material at other Fritz facilities or sold to other customers; approximately half of the aluminum recovered at HVS is sent to Fritz's River Rouge facility for use in secondary aluminum smelting. Approximately 50-70% of the inbound material received by HVS is recovered as metal; the rest ends up as waste material (plastic, rubber, auto-fluff, etc.), which is sent to landfill for disposal; currently, material is being sent to either Sauk Trails or Carleton Farms Landfills.

#### **APPLICABLE RULES/PERMIT CONDITIONS:**

Huron Valley Steel is an opt-out source for CO, NO<sub>x</sub>, and PM-10 operating under the following permits:

- Permit to Install No. 22-07B, issued on April 10, 2013, for one Aluminum Melting Furnace and one Copper Melting Furnace. This permit also set source-wide limits for CO, NO<sub>x</sub>, and PM<sub>10</sub> below major source thresholds, allowing the facility to opt out of Title V permitting requirements. The melting furnaces are subject to 40 CFR 63, Subpart RRR – Secondary Aluminum Production NESHAP. This equipment is installed, but has been idled since 2012 due to market conditions. The facility received this modification to the previous permit, PTI No. 22-07A, to convert one of the two aluminum melting furnaces to a copper melting furnace, but that modification was never performed. The facility is keeping this permit active in case future market conditions allows this process to be economically viable to operate.
- Permit to Install No. 188-11, issued on January 25, 2012, for a Prep Line. This equipment is currently in operation.
- Permit to Install No. 135-14A, issued on June 23, 2015, for a Non-Ferrous Wire Separation (ie, "Wire Sort") process. This equipment is currently in operation.
- Wayne County Permits C-10267 through C-10270, issued on December 21, 1993, for a Rotary Dryer and Rotary Tumbler Cooler. The Rotary Dryer is still in operation, but the Rotary Tumbler Cooler was removed in the mid-1990s.
- Permit to Install No. 18-01B, issued on May 26, 2005, for two Aluminum Alloy Rotary Dryers; the permit also included facility-wide fugitive dust conditions. In an inspection performed by Eric Grinstern on July 25, 2012, he noted that only one of the two dryers had been installed at that time. The aluminum alloy dryers and associated equipment has been idled since late 2012, though the facility-wide fugitive dust requirements remain applicable to current operations. The facility is keeping this permit active in case future market conditions allow this process to be economically viable to operate.

Material usage, emission, and operation records from January 2016 through April 2017 were reviewed to determine compliance at the time of inspection. These records can be found in the orange facility file.

PTI No. 22-07B, Special Conditions:

The conditions of PTI No. 22-07B relating to Emission Units EU-RF1 and EU-RF2, including Appendix A, were not evaluated during this inspection since these emission units have been idled since 2012. However, the conditions of FGFACILITY apply source-wide to all process equipment at the facility, and include opt-out limits for CO, NOx, and PM-10.

**FGFACILITY**

**I. EMISSION LIMITS**

Pollutant	Permit Limit	Highest Reported Emissions	Compliance Status
1. CO	89 tons per 12-month rolling time period	0.31 tons (12-month rolling time period ending October 2016)	IN COMPLIANCE
2. NOx	89 tons per 12-month rolling time period	0.52 tons (12-month rolling time period ending June 2016)	IN COMPLIANCE
3. PM-10	89 tons per 12-month rolling time period	0.48 tons (12-month rolling time period ending December 2016)	IN COMPLIANCE

**III. PROCESS/OPERATIONAL LIMITS**

1. **IN COMPLIANCE.** Facility implements and maintains an approved Fugitive Dust Plan for plant roadways, plant yard, material storage piles, and material and scrap handling operations. This includes daily sweeping and watering of the lot, including track out onto Huron River Drive, posting signs to keep truck speeds under 10 MPH, minimizing drop heights of transfer points, keeping the heights of storage piles below heights of surrounding buildings and keeping the piles wet, and the use of trees around the property to shield wind and dust. The facility has a 1,600-gallon water truck on site to control dust on unpaved areas and material storage piles (when needed). Unpaved areas are watered daily if there is no rain during the spring, summer, and fall months, and sometimes in winter, if necessary when the temperature is above freezing. The facility has a vac sweeper, which is used daily for paved areas and onto Huron River Drive near the facility entrance/exit.

**IV. MONITORING/RECORDKEEPING**

1. **IN COMPLIANCE.** Natural gas usage is recorded on a continuous basis.
2. **NOT EVALUATED.** The furnaces subject to 40 CFR Part 63, Subpart RRR are currently idled.
3. **IN COMPLIANCE.** Operation, maintenance, and monitoring records and calculations for equipment not subject to 40 CFR Part 63, Subpart RRR are maintained, as required.
4. **IN COMPLIANCE.** Facility maintains records of natural gas usage for FGFACILITY on a monthly basis.
5. **IN COMPLIANCE.** Facility calculates CO and NOx emissions on a monthly and 12-month rolling basis for all equipment included in FGFACILITY, in accordance with Appendix B of PTI No. 22-07B.
6. **IN COMPLIANCE.** Facility calculates PM-10 emissions on a monthly and 12-month rolling basis for all equipment included in FGFACILITY, in accordance of Appendix B of PTI No. 22-07B.

PTI No. 118-11, Special Conditions:

**I. EMISSION LIMITS**

1. **IN COMPLIANCE.** Visible emissions are below 10%, six-minute average. During the inspection, EU-PREPLINE was in operation and I did not observe any opacity from the conveyors or processing equipment. Water sprays were in use and appeared to effectively control fugitive dust emissions.

**II. MATERIAL LIMITS**

1. **IN COMPLIANCE.** Facility does not process more than 240,000 tons of material through EU-PREPLINE per 12-month rolling time period. Records show the highest total inbound material processed was 115,458 tons in the 12-month rolling time period ending March 2017.

#### IV. DESIGN/EQUIPMENT PARAMETERS

1. IN COMPLIANCE. External conveyor hoods are installed and maintained, as required.
2. IN COMPLIANCE. The drop distance of the conveyor transfer points appears to be reduced as much as practicable. No visible emissions were observed at the transfer points and any spillage was minimal.
3. IN COMPLIANCE. Water sprays are used on the conveyors to control fugitive dust from processing. Processed material is already wet, so no further watering of the material is required to prevent fugitive dust emissions. Inbound material may be sprayed to reduce dust, if necessary. Facility has a water truck on site.

#### V. TESTING/SAMPLING

1 IN COMPLIANCE. Daily visible emission readings of EU-PREPLINE are performed and recorded when the unit is in operation. I reviewed the Visible Emission logbook during the inspection; reading appeared to be performed and recorded daily and no issues with visible emissions requiring further Method 9 readings were noted.

#### VI. MONITORING/RECORDKEEPING

1. IN COMPLIANCE. Facility maintains records of all material processed on a monthly and 12-month rolling time period basis. Copies of records were provided during the inspection.
2. IN COMPLIANCE. Facility maintains written records of daily visible emission readings for EU-PREPLINE in a logbook. Records include date, time, name of reader, and results of readings. A review of the logbook did not show any visible emissions observed, so no Method 9 readings were required. Most of the readings were performed by Bob Bernes, who is Method 9 certified.
3. IN COMPLIANCE. Facility has a vac sweeper and a 1,600-gallon water truck on site. Most of the lot is paved and is swept daily. The unpaved areas are watered every day during the non-winter months, unless it rains. Some watering is done during the winter, if necessary, if temperatures are above freezing.

#### PTI No. 135-14A, Special Conditions:

##### I. EMISSION LIMITS

1. IN COMPLIANCE. Visible emissions are below 10%, six-minute average. During the inspection, EU-NonFeWireSep was in operation and I did not observe any opacity from the conveyors or processing equipment. A review of weekly non-certified visible emission readings did not indicate any visible emissions observed.

##### II. MATERIAL LIMITS

1. NOT IN COMPLIANCE. Throughput in EU-NonFeWireSep exceeded the daily throughput limit of 240 tons of processed material per calendar day a total of twelve times from January 2016 through April 2017. The following table lists the dates in which the throughput limit was exceeded:

Date	Total Daily Throughput
10/01/2016	276 tons
10/11/2016	247 tons
3/4/2017	243 tons
3/5/2017	267 tons
3/6/2017	242 tons
3/12/2017	249 tons
3/17/2017	249 tons
3/23/2017	250 tons
3/24/2017	277 tons
3/30/2017	269 tons
3/31/2017	266 tons

#### IV. DESIGN/EQUIPMENT PARAMETERS

1. IN COMPLIANCE. Material stored outside is sprayed with water to reduce fugitive dust, if necessary. The material is already wet before being processed, so this is usually not necessary.

#### VI. MONITORING/RECORDKEEPING

1. IN COMPLIANCE. Records are maintained on a monthly basis, as required.

2. IN COMPLIANCE. Facility maintains written records of weekly non-certified visible emission readings for EU-PREPLINE in a logbook. Records include date, time, name of reader, and results of readings. A review of the logbook did not show any visible emissions observed, so no Method 9 readings were required. Most of the readings were performed by Jeff Mills, who is Method 9 certified.

3. IN COMPLIANCE. Facility maintains daily records of the amount of material processed in EU-NonFeWirePrep.

#### Wayne County Permit Nos. C-10267 through C-10270, Special Conditions:

17. IN COMPLIANCE. Testing has not been performed to verify particulate matter (PM) emission rates from the rotary dryer; however, the facility is assumed to be in compliance with the emission limits through proper operation and maintenance of the baghouse. Facility demonstrates compliance with the annual PM limits through emission factors. The highest total PM emissions reported was 0.14 tons for the 12-month period ending April 2017.

18. IN COMPLIANCE. Baghouse is installed, operated, and maintained as required.

19. IN COMPLIANCE. Baghouse fines are collected and disposed of in an acceptable manner. Wastes and spent cartridges are sent to landfill for disposal.

20. IN COMPLIANCE. No visible emissions were observed from the dryer or baghouse during the inspection.

21. IN COMPLIANCE. Baghouse stack dimensions appear to meet the permit specifications of a maximum diameter of 22 inches and minimum height of 32 feet.

22. IN COMPLIANCE. Facility sweeps the paved areas and uses a water truck to spray unpaved areas to keep fugitive dust emissions minimized. During my inspection, I performed a walkthrough of the property and I did not note any visible emissions in the paved or unpaved areas which would have exceeded 5% over a 3-minute average.

23. IN COMPLIANCE. Facility followed the fugitive dust plan, as outlined in Appendix A of this permit.

24. IN COMPLIANCE. Facility maintains a daily record of abatement actions performed as part of the fugitive dust plan (Appendix A). This includes records of the sweeping of paved areas and watering of unpaved areas.

25. NOT EVALUATED. Testing of the emission rates from the rotary dryer baghouse has not been requested by MDEQ-Air Quality Division.

26. IN COMPLIANCE. MDEQ-Air Quality Division has not received complaints nor verified issues of fallout from the rotary dryer. As such, a written abatement program has not been requested by MDEQ-Air Quality Division.

Appendix A - Fugitive Dust Emission Control Program: Facility follows the fugitive dust plan to minimize fugitive dust from the paved and unpaved areas, storage piles, track out, and transfer points. This includes daily sweeping and watering of the lot, including track out onto Huron River Drive, posting signs to keep truck speeds under 10 MPH, minimizing drop heights of transfer points, keeping the heights of storage piles below heights of surrounding buildings and keeping the piles wet, and the use of trees around the property to shield wind and dust. The facility has a 1,600-gallon water truck on site to control dust on unpaved areas and material storage piles (when needed). Unpaved areas are watered daily if there is no rain during the spring, summer, and fall months, and sometimes in winter, if necessary when the temperature is above freezing. The facility has a vac sweeper, which is used daily for paved areas and onto Huron River Drive near the facility entrance/exit.

PTI No. 18-01B, Special Conditions:

The conditions of PTI No. 18-01B relating to Emission Units EUDRYER1, EUDRYER2, and EUCONVEYORS, and Flexible Group FGDRYERS were not evaluated during this inspection since these emission units have been idled since 2012.

**EUFUGDUST**

4.1. IN COMPLIANCE. Facility sweeps the paved areas and uses a water truck to spray unpaved areas to keep fugitive dust emissions minimized. During my inspection, I performed a walkthrough of the property and I did not note any visible emissions in the paved or unpaved areas which would have exceeded 5% over a 3-minute average.

**FGFACILITY**

6.1: IN COMPLIANCE. Facility follows an approved fugitive dust plan for all roadways, plant yard, storage piles, and material handling operations. This fugitive dust plan is the same plan attached as Appendix A of Wayne County Permits C-10267 through C-10270, and compliance with this Appendix A is described under the evaluation of C-10267 through C-10270.

Additional Permit Information:

The following Wayne County permits will be voided at the request of the company because the equipment is either no longer in operation and has been removed or is now covered by other permits:

C-3466 through C-3469 (no additional permit information available) for Wash Plant Cyclone 1 & 2 and Belt Conveyors.

C-4919 through C-4924, issued May 18, 1979, for Raw Material Handling.

C-9479 through C-9481, issued November 12, 1991, for Replacement Baghouse on Zinc Distillation Column.

C-9486 through C-9495, issued October 29, 1992, for Scrap Zinc Melters Nos. 1 & 2, Rotary Kilns, Rotary Tumbler/Screens, 30-Ton and 60-Ton Zinc Holding Furnaces, 30,000 CFM Baghouse Dust Collector.

C-9755, C-9757, and C-9758, issued October 2, 1992, for a Pulse Jet Fabric Filter Dust Collector for Belt Feeder Hoppers 1 and 2.

C-9856 through C-9867, issued on November 5, 1992, for an "Unmeltables" Line controlled by a Pulse Jet Fabric Filter Dust Collector.

C-10569 through C-10571, issued December 13, 1994 for a Mixing Tank, Waste Treatment Filter Press, and Fabric Dust Collector.

C-11196 and C-11197, issued March 17, 1998, for Aluminum Processing Dryer and Baghouse.

C-11371 through C-11375, issued on April 28, 1999, for a Zinc Screw Conveyor, Three Rotary Kiln Processes, and Dedross Ladle with a Pulse Jet Fabric Filter Dust Collector.

C-11439, issued September 21, 1998, for a Scrubber for Existing Water/Zinc Dust Mixing.

C-11482 through C-11486, issued November 3, 1997 for a Zinc Distillation Column Launder, Sumps A, B, and C, and Fabric Pulse Jet Dust Collector.

In addition, PTI No. 22-00, issued March 29, 2000, for a Rotary Zinc Melting Plant and two Baghouses, will also be voided as the equipment is no longer on site.

Note: The facility has requested that Wayne County Permit Nos. C-10707 through C10711, issued April 28, 1995, to HVS' former Detroit facility at 9110 St. Stephens (M4618), also needs to be voided since this facility shut down in the early 2000s and all equipment has been removed.

**FINAL COMPLIANCE DETERMINATION:**

Based on this inspection, Huron Valley Steel was determined to be in noncompliance with the following permit condition:

Permit to Install 135-04A, EU-NonFeWireSep, Special Condition II.1: Facility is limited to 240 tons of processed material per calendar day. Based on daily processing records provided by the facility, the facility exceeded this limit twelve times from January 2017 through April 2017.

As a result, Huron Valley Steel will be issued a Violation Notice.

NAME           *V. Han*          

DATE           *9-13-17*          

SUPERVISOR           *JK*